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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,852	11/06/2001	Koji Utsugi	Q67040	4392

7590 02/04/2005

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Washington, DC 20037-3202

EXAMINER .

WEINER, LAURA S

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/985,852	Applicant(s) UTSUGI ET AL.	
	Examiner Laura S Weiner	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,5 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Upon further consideration, a new ground(s) of rejection has been made.

Therefore, the finality of that action is withdrawn.

2. Applicant's arguments with respect to claims 4-5, 25-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. Claims 5 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Katsumata (JP 8-250,108, abstract) or Kawakami et al. (5,641,591).

Katsumata teaches a metal foil consisting of a metal lithium or lithium-aluminum alloy which constitutes a negative electrode which is left under an argon gas atmosphere containing a small amount of hydrogen fluoride or hydrogen chloride to form a lithium fluoride film on the metal foil surface.

Kawakami et al. teaches in column 6, lines 4-18, that in order to prevent the growth of lithium dendrite, it is considered that to eliminate or minimize the formation of the uneven insulating coating film is effective. In order to attain this situation, a surface of an anode comprised of a lithium foil is covered with an insulating film comprising lithium carbonate, lithium hydroxide or lithium fluoride.

Since there is no water present in this reaction than inherently "no lithium hydroxide or lithium oxide film" would be formed.

4. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by Kawai (JP 7-302617, abstract).

Kawai teaches a battery comprising a negative electrode made of at least one of a lithium alloy where the negative electrode has on its surface a film containing lithium fluoride.

Claim Rejections - 35 USC § 103

5. Claim 4 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Katsumata (JP 8-250108, abstract) or Kawakami et al. (5,641,591).

Katsumata teaches a metal foil consisting of a metal lithium or lithium-aluminum alloy which constitutes a negative electrode which is left under an argon gas atmosphere containing a small amount of hydrogen fluoride or hydrogen chloride to form a lithium fluoride film on the metal foil surface.

Kawakami et al. teaches in column 6, lines 4-18, that in order to prevent the growth of lithium dendrite, it is considered that to eliminate or minimize the formation of the uneven insulating coating film is effective. In order to attain this situation, a surface of an anode comprised of a lithium foil is covered with an insulating film comprising lithium carbonate, lithium hydroxide or lithium fluoride.

In the event any differences can be shown for the product of the product by

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process claim 4, as opposed to the product taught by Katsumata or Kawakami et al., such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results. *In re Thrope* 227 USPQ 964; (Fed. Cir. 1985).

With respect to the product by process claim 4, the determination of patentability is based upon the product itself not upon the method of its production. *In re Thrope* 227 USPQ 964; *In re Brown* 173 USPQ 685; *In re Bridgeford* 149 USPQ 55; *In re Wertheim* 191 USPQ 90. Any difference imparted by the product by process limitations would have been obvious to one having ordinary skill in the art at the time the invention was made because where the Examiner has found a substantially similar product as in the applied prior art, the burden of proof is shifted to the Applicants to establish that their product is patentably distinct. *In re Brown* 173 USPQ 685 and *In re Fessmann* 180 USPQ 324.

Claim Rejections - 35 USC § 112

6. Claims 4-5, 25-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4 and 27 are rejected because it is unclear what "multiplied laminated structure" encompasses. Does this mean 1 or more times? 2 or more times? Also, the claim should cited that "the lithium layer and the metal fluoride substance layer being alternately". In addition, it is unclear what is meant by "comprising a lithium layer

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including therein".

Claim 5 is rejected because it is unclear what "a multilayered alternating laminated structure" encompasses. Does this mean 1 or more times? 2 or more times? Also, Claim 5 is rejected because the claim should cited "laminated structure of the lithium layer and". The claim would be clearer if written as claim 4 that the anode layer further comprises a metal fluoride substance layer and then that the anode is a multilayered structure. It is unclear what is meant by "comprising a lithium layer including therein" and "a metal fluoride substance layer containing therein".

Claim 25 is rejected because it is a method claim and it is unclear what are the method steps. It is unclear if the step of forming by a vacuum film growth method is a method step. It is unclear what is meant by "comprising a lithium layer including therein". Also, the claim should state that "wherein said metal fluoride substance layer comprises...".

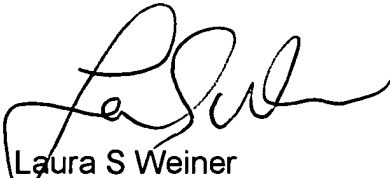
Claim 26 is rejected because it is unclear what is meant by "comprising a lithium layer including therein".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura S Weiner
Primary Examiner
Art Unit 1745

February 2, 2005